

In the Claims

Claims are amended as follows:

1 to 20 (cancelled)

21. (new) A method of controlling the admission of a traffic flow to a communications network, the method comprising the steps of:

sampling an aggregated traffic flow on a network resource to which the traffic flow is to be admitted to obtain a mean bandwidth measurement and a bandwidth variance measurement of said aggregated traffic flow;

determining from said mean bandwidth and variance measurements a price for bandwidth and a separate price for variance;

sampling the traffic flow to be admitted to the network resource to measure its mean bandwidth and variance; and

applying to said traffic flow the separate prices for bandwidth and variance as a means of controlling admission of the traffic flow to the network resource.

22. (new) The method of claim 21, wherein the price for bandwidth is determined as a price for unit bandwidth and the price for variance is determined as a price for unit variance.

23. (new) The method of claim 22, wherein a total price for admission of the traffic flow to the network resource is provided to an admission controller of said traffic flow, said total price comprising the sum of the following products: i) the measured mean bandwidth of the traffic flow times the price per unit bandwidth for using the network resource; and ii) the variance of the traffic flow times the price per unit variance for using the network resource.

24. (new) The method of claim 21, wherein an admission controller associated with the traffic flow regulates at least one of the mean bandwidth and variance of said traffic flow.

25. (new) The method of claim 24, wherein said admission controller comprises an ingress controller in an edge node of the communications network.

26. (new) The method of claim 21, wherein respective maximum control limits are defined for both the mean bandwidth and bandwidth variance components of the aggregated traffic flow on the network resource, and wherein at least one of said price for bandwidth and price for variance is increased as any of the mean bandwidth and variance measurements of said aggregated traffic flow approaches its respective limit.

27. (new) The method of claim 26, wherein the determination of the bandwidth price is a function of the difference between the measured mean bandwidth of the aggregated traffic flow and the mean bandwidth control limit, and of the first and second derivatives against time of said function.

28. (new) The method of claim 26, wherein the determination of the variance price is a function of the difference between the control limit and the sum of the measured variance of the aggregated traffic flow and a standard deviation corresponding to said variance, and of the first and second derivatives against time of said standard deviation.

29. (new) A network manager for a communications network, comprising:
a first traffic flow sampler for sampling aggregated traffic flow on a network resource to which a traffic flow is to be admitted to obtain a mean bandwidth measurement and a bandwidth variance measurement of said aggregated traffic flow;

price computation means for determining from said mean bandwidth and variance measurements a price for bandwidth and a separate price for variance;

a second traffic flow sampler for sampling the traffic flow to be admitted to the network resource to measure its mean bandwidth and variance; and

means for applying to said traffic flow the separate prices for bandwidth and variance as a means of controlling admission of the traffic flow to the network resource.

30. (new) The network manager of claim 29, wherein the price computation means determines the price for bandwidth as a price for unit bandwidth and the price for variance as a price for unit variance.

31. (new) The network manager of claim 29, wherein the price computation means provides a total price for admission of the traffic flow to the network resource to an admission controller of said traffic flow, said total price comprising the sum of the following products: i) the measured mean bandwidth of the traffic flow times the price per unit bandwidth for using the network resource; and ii) the variance of the traffic flow times the price per unit variance for using the network resource.

32. (new) The network manager of claim 29, wherein the network manager defines respective maximum control limits for both the mean bandwidth and bandwidth variance components of the aggregated traffic flow on the network resource, and wherein said manager increases at least one of said price for bandwidth and price for variance as any of the mean bandwidth and variance measurements of said aggregated traffic flow approaches its respective limit.

33. (new) The network manager of claim 32, wherein the price computation means determines the bandwidth price as a function of the difference between the measured mean bandwidth of the aggregated traffic flow and the mean bandwidth control limit, and of the first and second derivatives against time of said function.

34. (new) The network manager of claim 32, wherein the price computation means determines the variance price as a function of the difference between the control limit and the sum of the measured variance of the aggregated traffic flow and a standard deviation corresponding to said variance, and of the first and second derivatives against time of said standard deviation.

35. (new) An admission controller for admitting traffic flows to a network resource in a communications network, the controller comprising:

a traffic flow sampler for sampling a traffic flow to be admitted to the network resource to measure its mean bandwidth and variance;

means for receiving a price for bandwidth and a separate price for variance from a network manager; and

means for applying to said traffic flow the separate prices for bandwidth and variance received from the network manager as a means of controlling admission of the traffic flow to the network resource.

36. (new) A computer readable medium comprising program code for configuring a network manger of a communications network, said program code comprising:

code for sampling aggregated traffic flow on a network resource to which the traffic flow is to be admitted to obtain a mean bandwidth measurement and a bandwidth variance measurement of said aggregated traffic flow;

code for determining from said mean bandwidth and variance measurements a price for bandwidth and a separate price for variance;

code for sampling the traffic flow to be admitted to the network resource to measure its mean bandwidth and variance; and

code for applying to said traffic flow the separate prices for bandwidth and variance as a means of controlling admission of the traffic flow to the network resource.